

# BIOCHEMISTRY

## The Chemical Reactions of Living Cells

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1977 Academic Press

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the hazards facing us. Nevertheless, there is always some resistance. Some will insist on inspection for violation of agreements. But how could one inspect thoroughly enough? Lederberg suggested that the only possible form of control is now evolving. It must come from scientists themselves who must step out of their roles as "pure" scientists and accept the responsibility of preventing foolish uses of new biological discoveries. It may seem impossible that there could be a scientific community which could be counted on always to act in a responsible way, but it may be the only way that human beings can survive for long on this planet. Lederberg believes it possible (and so do I).

If this book has helped to bring to the reader some awareness of the knowledge and power of molecular biology, I hope that these final words may lead the reader to heed the advice of Professor Lederberg. I sincerely hope that all the young people now studying biochemistry and modern biology will commit themselves to using the fantastic new knowledge available to us for the betterment of mankind and proceeding with caution and responsibility as they move into positions of influence in the scientific community.

Returning to the problem of biological weapons, at a conference in Berkeley in 1971, Joshua Lederberg, discoverer of genetic recombination in bacteria, talked about these matters. Lederberg asked if fairness and objectivity are possible outside the laboratory. He thought so. He pointed out that the nations of the world have agreed to stop production of biological weapons and that genuine steps have been taken to decrease some of